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Accounting Procedures for Foreign-owned Nuclear Material Located Temporarily in the Russian Federation

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I. Necessity for Control and Accounting of Foreign-owned Nuclear Material

Article 5 of the Russian Federal Law “On the Use of Atomic Energy” (21 November 1995) states that “all nuclear material is federal property.” However, the nuclear fuel cycle industry in Russia actively uses nuclear material that is the property of foreign owners. Accordingly, the Russian Federation Government “Regulation on State Nuclear Material Control and Accounting” requires the control and accounting of foreign-owned nuclear material located temporarily in the Russian Federation.

The Russian Federation Government has also authorized the Federal Agency for Atomic Energy (Rosatom) to develop control and accounting procedures for foreign nuclear material located temporarily in the Russian Federation.

II. The Russian-U.S. Working Group for the Development of the Regulation

The working group formed for the development of this regulation consists of specialists from Rosatom, TsNIIATOMINFORM, other Rosatom organizations that handle foreign nuclear material, the Federal Customs Service and the Federal Customs Control Service. American partners provided advice and financial support under the project for the development of the Federal Information System for Nuclear Material Control and Accounting (FIS).

The working group began by analyzing the existing regulatory system for nuclear material control and accounting in Russia. A series of meetings were held with Russian and U.S. specialists to study how the Americans addressed this problem within the U.S. national nuclear material control and accounting system.

III. Kinds of Foreign Nuclear Material

The foreign-owned nuclear material received by the Russian Federation is used for a variety of purposes. Other countries generally send nuclear material to Russia for chemical reprocessing, enrichment or fuel fabrication for nuclear power plants. It may also be received in the form of irradiated nuclear fuel for interim storage and reprocessing before it is returned to the foreign owner.

Nuclear material can be sold by Russian companies to foreign companies within Russia (known as "book transfers") and may be received by Russia for

research or other purposes as established in international contracts between Russia and other countries that supply nuclear material.

IV. The Purpose of Control and Accounting of Foreign-owned Nuclear Material

Control and accounting of foreign-owned nuclear material is required for the following reasons: to ensure that foreign-owned nuclear material is used as designated in foreign trade contracts; to create an effective mechanism that secures and prevents its loss, theft or trafficking; and to monitor compliance with the international obligations of the Russian Federation under nuclear weapons nonproliferation agreements, which includes meeting the conditions required for the application of International Atomic Energy Agency (IAEA) safeguards.

V. General Principles of Control and Accounting of Foreign-owned Nuclear Material

Accounting for foreign-owned nuclear material located temporarily in Russia is based on the following general principles:

- Foreign-owned nuclear material is subject to state control and accounting in the Russian Federation irrespective of its chemical or physical form, irradiation status, or the customs provisions under which it was imported into the Russia.
- Foreign-owned nuclear material is subject to state accounting according to the procedures established in current Russian Federation regulations.

VI. Organization of Control and Accounting of Foreign-owned Nuclear Material

Control and accounting of nuclear material, including foreign-owned nuclear material, is performed by operating organizations and at the federal level.

At the federal level, the Federal Agency for Atomic Energy and the Federal Technical and Export Control Service are responsible for control and accounting of foreign-owned nuclear material.

At the level of the operating organizations, control and accounting of foreign-owned nuclear material is the responsibility of foreign economic activity participants and subcontracting organizations (henceforth, subcontractors).

Within the scope of its authority, the Federal Agency for Atomic Energy shall develop and implement control and accounting procedures for foreign-owned nuclear material, including report forms and reporting procedures for information on the location and movement of foreign-owned nuclear material and other inventory changes.

Mechanisms also must be developed and implemented to collect, process and store this information, utilizing the Information Analysis Center of the Federal Information System for this purpose.

In addition to Rosatom, there are other federal executive branch agencies that monitor the receipt of foreign nuclear material in Russia. Consequently, interagency information exchange procedures need to be developed in order to confirm data on the location of foreign nuclear material in Russia, as well as its movement across the customs border.

As established in the interagency information exchange procedures, the Federal Customs Service must provide specific data on foreign-owned nuclear material to Rosatom as of the date the material crosses the customs border. At the same time, the Federal Technical and Export Control Service must submit information to Rosatom regarding the licenses it issues for book transfers and imports/exports of foreign-owned nuclear material.

Participants in foreign economic activity supply information to Rosatom on all signed contracts and agreements pertaining to foreign-owned nuclear material.

Within the scope of their authority, and for all contracts concerning the handling of foreign-owned nuclear material, subcontractors for foreign economic activity are responsible for the administration of control and accounting of foreign-owned nuclear material at the organizations in accordance with the nuclear material control and accounting procedures of the Russian Federation. They must also prepare and provide shipping/receiving reports, inventory listings and inventory change reports to Rosatom for foreign nuclear materials, as well as reports on compliance with international obligations.

The state register of nuclear materials, which is compiled annually by Rosatom, shall report the location of foreign nuclear material in the Russian Federation.

We also should note that in-transit foreign-owned nuclear material accounting in the Russian Federation is solely the responsibility of the Federal Customs Service. In-transit foreign-owned nuclear material refers to operations associated with the transportation of foreign-owned nuclear material through the Russian Federation that is neither used nor stored by resident Russian Federation organizations (excluding interim storage at the cargo facilities of organizations participating in shipments of these materials)

VII. Specific Features of Foreign-owned Nuclear Material Accounting

When foreign nuclear material is imported into the Russian Federation or a book transfer transaction occurs, information regarding the quantity and isotopic composition of the material is entered in the appropriate accounting records and reports, including a customs declaration. This information is obtained from the shipping documents, and is verified by the receiver (or subcontractor for foreign economic activities) through confirmatory measurements at the time the nuclear material is received at the organization.

If foreign nuclear material is imported into the Russian Federation for reprocessing, the customs documents will state the estimated amount of

reprocessing waste (tailings) that will remain in the Russian Federation, as well as the anticipated quantity and isotopic composition of the end product to be exported as foreign-owned nuclear material.

Foreign nuclear material in the form of irradiated nuclear fuel from research and commercial power reactors (foreign irradiated nuclear fuel) that has been imported for interim storage and reprocessing is accounted for based on the isotopic composition data provided by the foreign supplier.

If a foreign state supplying nuclear material requires the Russian Federation to allow monitoring of the imported material, the reporting procedures and scope of the reported information, as well as access of the supplier's representatives to sites where the foreign-owned nuclear material is stored or reprocessed, will be arranged under special agreements.

Organization material balance areas do not specifically account for foreign-owned nuclear material, i.e., none of the procedures performed, including physical inventories, require foreign nuclear material to be treated separately. This is because domestic and foreign-owned nuclear materials are not differentiated in the production process.

VIII. Conclusion

The "Regulation on Control and Accounting for Foreign-owned Nuclear Material" is now in the final stage of development. The first draft has been discussed, all comments and suggestions received have been collated and analyzed, and the preparation of a second draft is underway.

We expect that the document will be ready for release by the end of 2005. This means that the implementation of the regulation can begin in earnest in 2006, including any modifications necessary to the FIS.